

ABSTRACT

IMPROVEMENTS IN OR RELATING TO SWITCHING DEVICES

The invention relates to a switching device (300) having a plurality of line interface cards (LICs) (310), a plurality of egress LICs (320), a cross-bar (330) and a management card (340). The switching device (300) routes fixed sized cells of data across the cross-bar (330). The cells comprise fragments of variable length data packets. Each ingress LIC (312, 314, 316) is associated with a respective schedule or timetable (362, 364, 366) governing the transmission of cells by the ingress LIC. Similarly, each egress LIC (322, 324, 326) is also associated with a respective schedule or timetable (382, 384, 386) governing the reception of cells by said egress LIC. The schedules are in the form of a table whose entries are the identities of transmission queues corresponding to a respective egress LIC identification number (for ingress LICs) and ingress LICs from which to receive (egress LICs). Each ingress and egress LIC maintains a pointer into its associated schedule. At each cell transmit time, each ingress LIC transmits a cell from the queue identified by the pointer and each egress LIC will receive the cell from the ingress LIC identified in the entry referenced by the pointer. The pointers then move to the next location. Each schedule is circular in the sense that when moving the pointer from the last entry, its next position is the first entry.

(Fig. 3)